

Future Flight Design			
2010 Science			
Academic Content Standards			
Ohio Science			
Grade 5			
Activity/Lesson	State	Standards	
Aircraft Design Problem	OH	SCI.5.PS.1.1.a	Movement can be measured by speed. The speed of an object is calculated by determining the distance (d) traveled in a period of time (t).
Aircraft Design Problem	OH	SCI.5.PS.1.1.b	Earth pulls down on all objects with gravitational force. Weight is a measure of the gravitational force between an object and the Earth. The weight of the object and amount of force applied affect the speed of the object.
Future Flight Design			
2010 Science			
Academic Content Standards			
Ohio Science			
Grade 6			
Activity/Lesson	State	Standards	
Aircraft Design Problem	OH	SCI.6.PS.1.1.a	Each atom takes up space, has mass and is in constant motion. Mass is the amount of matter in an object.
Aircraft Design Problem	OH	SCI.6.PS.1.2.a	Atoms and molecules are not changed in structure when a substance undergoes a change of state; the amount of motion of the atoms and molecules is changed. Thermal energy is a measure of the motion of the atoms and molecules in a substance.
Aircraft Design Problem	OH	SCI.6.PS.1.3.a	Objects and substances in motion have kinetic energy.
Aircraft Design Problem	OH	SCI.6.PS.1.4.a	An object's position and speed can be measured and graphed as a function of time.
Aircraft Design Problem	OH	SCI.6.PS.1.3.b	Objects and substances can store energy as a result of its position (potential energy).
Future Flight Design			
2010 Science			
Academic Content Standards			
Ohio Science			
Grade 8			
Activity/Lesson	State	Standards	
Aircraft Design Problem	OH	SCI.8.PS.1.2.a	The motion of an object is always measured with respect to a reference point.

Aircraft Design Problem	OH	SCI.8.PS.1.2.b	Forces can be added. The net force on an object is the sum of all of the forces acting on the object. The net force acting on an object can change the object's direction and/or speed.
Aircraft Design Problem	OH	SCI.8.PS.1.2.c	When the net force is greater than zero, the object's speed and/or direction will change. When the net force is zero, the object remains at rest or continues to move at a constant speed in a straight line.
Aircraft Design Problem	OH	SCI.8.PS.1.3.a	Gravitational potential energy changes in a system as the masses or relative position(s) of objects are changed. Objects can have elastic potential energy due to their compression, or chemical potential energy due to the nature and arrangement of the atoms that make up the object.